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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/079,056

02/19/2002

Adam W. Cates

279.384US1

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09/09/2004

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EXAMINER

GETZOW, SCOTT M

ART UNIT

PAPER NUMBER

3762

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/079,056	Applicant(s) CATES ET AL.	
	Examiner Scott M. Getzow	Art Unit 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-156 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-156 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1,2,3,31-43,54-57,59,60,64,65,68,70,82-95,137-147,151-156 are rejected under 35 U.S.C. 102(e) as being anticipated by Keilman et al (6231516).

Keilman teaches stents including therapeutic and diagnostic transducers. As taught in col. 3, the device can sense pressure, chloride ions insulin, etc. as well as deliver drug therapy. Col. 6 lines 24-26 teach that other sensors can be used. Col. 7, line 40 to col. 8 lines 18 teaches that an external power supply can supply power either through the received RF signal or through a tether.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4,5,6,8,9,11-22,44-48,58,63,66,67,72-75,79-81,96-112,114,115,117-136,148-150 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keilman et al (6231516) in view of Cox et al (6141588).

To use a data encoder, as well as digital signals, for the transmission between the implanted device sensor and the external device, as shown by Cox, would have been obvious in that such encoders and digital circuitry are common in the art since they are more immune to interference, see Cox fig. 5. Cox also teaches the ability to sense electrical signals, such as impedance, in order to determine if the patient's heart is experiencing normal sinus rhythm or an arrhythmia. If an arrhythmia is detected, then proper electrical stimulation is given, see col. 6, lines 30+. Col. 10 lines 1+ teach that an impedance sensor is used. To have the electrical stimulation capability of Cox with the device of Keilman would have been obvious since each invention has structure whereby localized portions of the patient's body can receive treatment, rather than a large area, and that the circuitry of Cox would fit well into the stent of Keilman to allow for better treatment of the patient who needs electrical stimulation as well as drug therapy. Further, to sense oxygen saturation is considered to be obvious over the teachings of measuring blood gas concentrations in col. 29 of Keilman.

5. Claims 7,113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keilman et al (6231516) and Cox et al (6141588) and further in view of Chau et al (article titled An ultraminiature solid state pressure sensor for a cardiovascular catheter).

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Chau show the use of a capacitive membrane sensor. It would have been obvious to use such with the device of Keilman and Cox since such capacitor sensors are common in the art for their accuracy in biological environments.

6. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keilman et al (6231516) in view of Chau et al.

See rejection supra.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keilman et al in view of Dreschel et al (6645145).

Dreschel teaches MEMS technology to produce miniature medical devices. It would have been obvious to make the Keilman circuitry using MEMS technology since such is common in the art and desirable for the small size that can be attained.

8. Claims 71,116 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keilman et al and Cox et al and further in view of Dreschel et al.

See the rejection supra.

9. Claims 23-30,49-53,62,69,76-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keilman et al.
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The teachings of col. 39 lines 58 to col. 41 lines 25 is consider to render obvious the subject matter of the above claims. It would have been obvious to use an electro-erodible coating since without such the drug would release too quickly. The electrodes of Keilman clearly are used to enable the localized drug delivery.

Because a new rejection has been made, this action is not made final.

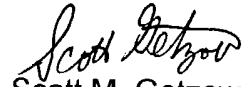
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Soykan (6206914) teaches that a drug coated stent can release its drug using electrical energy.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott M. Getzow whose telephone number is (703) 308-2997. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (703) 308-5181. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Scott M. Getzow
Primary Examiner
Art Unit 3762

smg